EXHIBIT S-30

S-30 Beall 1961 Assembly Building - Fire Records of the Oregon State Fire Marshal and Fire Insurance Rating Bureau

RECORDS COLLECTED FROM THE OREGON STATE ARCHIVES

Records of the State Fire Marshal

Box: 4

CONFIDENTIAL
This report should be made available only to authorized persons.

LOSS REPORT

OREGON INSURANCE RATING BUREAU
Division of Pacific Fire Rating Bureau
PORTLAND, OREGON

F. R. No. 5045
Inspector: R. B. Bryant
Date: September 28, 1961

BEALL PIPE AND TANK CORPORATION (Owner of bays 5-11)
INTERNATIONAL TERMINALS (Owner of bays 1-4)
Division of Dulien Steel Products Incorporated of Washington
KERR GRAIN CORPORATION (Lessee)
WEST COAST STEEL WORKS (Lessee)

LOCATION: North Burgard Street, Multnomah County, just outside city limits of Portland. (Protection Class 5 at risk).

MAP: Not on Sanborn map. (Diagram on file at Oregon Insurance Rating Bureau).

CLASS OF RISK: Predominantly frame metalworker and grain storage.

DATE OF LOSS: Saturday, June 17, 1961 between the hours of 10:16 a.m. and 12:46 p.m. (Pacific daylight time)

WEATHER: Temperature 79 degrees; wind light; relative humidity 56%.

DESCRIPTION OF PROPERTY: Size, 890 ft. by 330 or 460 ft. Total area approximately 385,000 sq. ft. This entire area was open with no division walls except for frame partitions separating the grain storage section from other occupancies. Height, 48 ft. to eaves and 60 ft. to top of roof arches. Walls, generally metal on skeleton wood framing or open. Wall sections between main building and additions, however, were frame. Roof, 2 1/2" T. and G. on Howe type frame trusses, supported by fabricated steel columns (which also supported traveling cranes) spaced 78 ft. apart forming a series of eleven bays. Floor, primarily concrete with minor sections asphalt. Exposures, closest buildings over 90 ft. distant.

OCCUPANCY: This building was used for metal fabrication and grain storage.

Beall Pipe and Tank Corporation, occupying approximately 72% of the building, manufactured and installed specialty tanks for trucks and other vehicles and fabricated culvert pipe by rolling, bending and welding. Hazards were ordinary for the class except for large tar dipping vats. Portions of this area were formerly used for grain storage and it is likely that there was considerable grain dust on structural members.

Kerr Grain Corporation, occupying approximately 10% of the building, stored grain in an open pile on heavy frame "jack" bins. Portable conveyors were used for moving grain. At time of fire there were approximately 344,200 bushels of wheat in storage.

West Coast Steel Works fabricated heavy bridge components with hazards usual to the class.

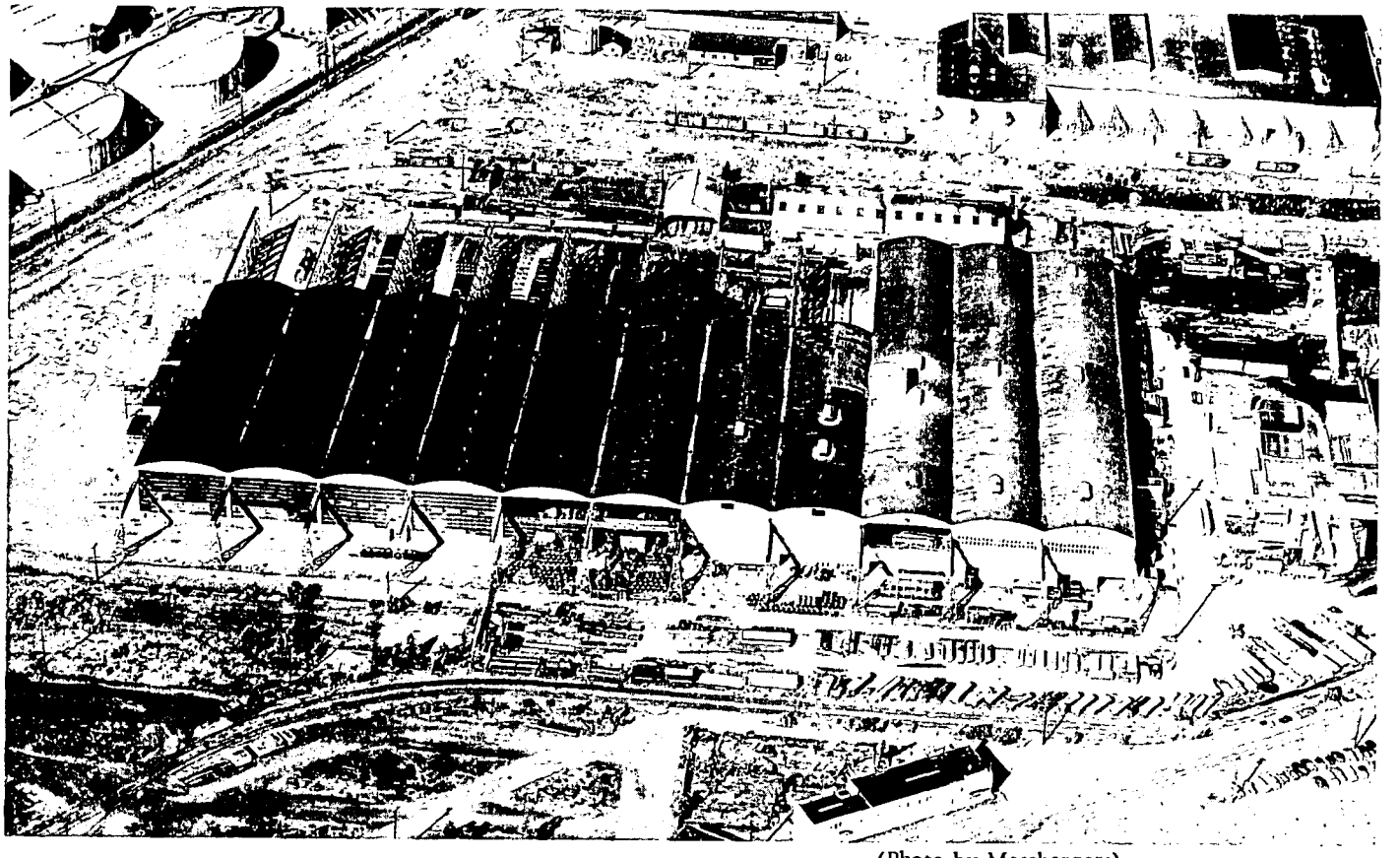
PROTECTION: This risk was on the premises of the old Oregon shipyard just outside the city limits of Portland, and was originally the Assembly building. Fire department response from Portland is furnished under a special contract. The water supply in this area is privately owned with no connection to the Portland water system. Water is obtained from deep wells with local storage of 500,000 gallons and distribution system is supplied by 5 electric driven automatically controlled pumps, 2 of which are equipped with auxiliary manually started gasoline engines. Standard frost proof hydrants are located throughout the area, but hydrant distribution around the risk involved in the fire was fair to poor.

CAUSE OF FIRE: Unknown. Fire apparently was first observed burning through a frame partition between the main building and a combustible addition which contained paints, lacquers and thinners, some of which were in open cans.

ESTIMATE OF LOSS: Adjustments of losses have not been completed. The following loss estimates are based upon information furnished by adjustors.

PROPERTY	APPROXIMATE PROPERTY VALUE	INSURANCE	ESTIMATED LOSS	ESTIMATED INS. LOSS
Beall Pipe and Tank				
Building	$ 1,160,300	$ 1,044,500	$ 940,000	$ 940,000
Equipment	1,421,700	1,279,500	1,151,600	1,151,600
Stock	604,100	278,600	unknown	251,240
Business Interruption		846,000	846,000	846,000
Kerr Grain				
Equipment and Tenants Improvement	16,700	10,000	16,700	10,000
Grain stock	780,000	1,500,000 (Lim. of Liab.)	513,300	513,000
West Coast Steel				
Equipment and Tenants Improvement	unknown	37,000	53,000	no estimate available
International Terminals				
Building	343,600	200,000	260,500	200,000
			TOTAL	3,912,140

Approximately 88-90% of the grain stock was physically recoverable, but because Willamette River water was used in the extinguishment of the blaze in the grain the Oregon State Department of Agriculture condemned it as unfit for human consumption. This adversely affected the salvage value, as the wheat then became part of the animal feed market competing with lower priced feeds.



(Photo by Messbargers)

General view of the building before the fire looking Northwest. Note the small frame attachments at both ends of the building. Fire presumably started in the receiving-warehouse shed attached to middle of the outside end wall on the right.

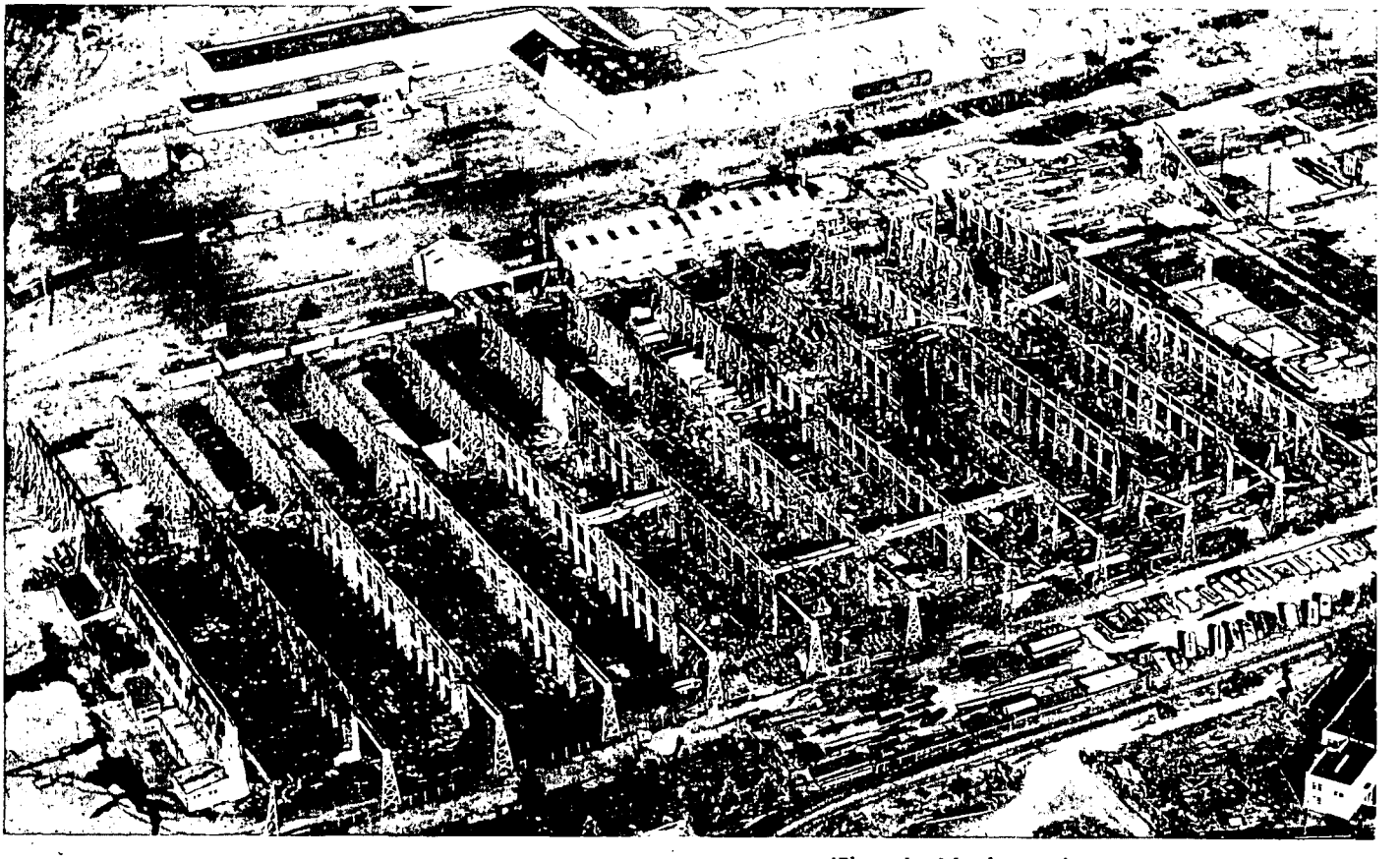
STORY OF FIRE: On Saturday morning, the day of the fire, the normal operating crew of 230 employees was off due to the usual weekend shutdown and no one was working in the building. Four workmen, employed by Beall were working in an outside yard area. Beall's watchman had started his normal tour at 9:30 a.m., had punched all 16 key stations and returned to his guard house at 10:10 a.m. Apparently the only other people at work in the near vicinity were three men working in a building 800 ft. South.

The 4 Beall workmen had stopped for a coffee break and one of the men had gone for a thermos of coffee when he noticed fire burning through the combustible wall that separated the main building from the small warehouse attachment. The spot where the flame had burned through was about 15 ft. above the floor and about 20 ft. wide. As a wall of flame was rapidly sweeping upward he ran from the building yelling "fire".

Beall's watchman and the other workmen heard this call and noticed black smoke erupting from the roof of the warehouse attachment. The watchman immediately phoned the Portland fire department at 10:13 a.m. and the call was received at Portland alarm headquarters at 10:16 a.m.

Running into the building the workmen attempted to control the blaze with chemical extinguishers but had little success. Inside stand pipe and hoses were not utilized. As the fire was rapidly spreading, the men quickly started to move unfinished trailer assemblies from the building and, as they began this task with a fork-lift truck, they could hear the sound of sirens in the distance.

Fire department response to this area is automatically 3 alarms and consisted of 4 engine companies, 1 truck, 1 fire boat and a Battalion Chief. The Chief asked for a 4th alarm assignment at 10:27 a.m., a 5th alarm at 10:31 and a 6th alarm at 10:35 a.m. A call for a mutual aid at 10:41 a.m. brought 6 companies into Portland stations on a prearranged basis. Altogether out of the 334 firemen responding to the emergency 212 performed at the fire and the remainder served in a standby capacity at other locations. Total apparatus responding included 19 pumpers, 4 manifolds, 5 trucks, 2 compressors, 1 squad, 2 fire boats and one tanker. A total of 24,100 feet of hose was used and total department service was eleven hours and fourteen minutes.



(Photo by Messbargers)

General view of the building after the fire. Note warping of structural steel framework. All combustible portions destroyed except small frame office and tool rooms attached to outside end wall on the left.

At the start of the fire the men working in the building 800 feet south, ran over to the main bank of transformers serving the Assembly building and opened the fuse-switches on the primary lines using a "hot-stick". Apparently a flash-over occured while these switches were being opened and the power surge was sufficient to cause two high voltage aerial wires to come together. This fused the wires and let them drop. The surge resulting from this short-circuit went through the distribution circuit fuses and opened a circuit breaker at a substation approximately one-half mile away. The operator of the substation could not keep the breaker closed because of the broken aerial wires and had to direct a field crew to the fire to remove the fused wires. This resulted in closing the breaker and power was restored to the area. All the electric pumps controlling the water supply at the fire were without outside power while this breaker was open.

First responding fire companies noticed that the pressure on the mains was very low and several pumpers were drawing a vacuum. At this time the men who had opened the fuse switches drove to the main pump house to start the auxiliary gasoline engine on the distribution pump. Due to the distance involved, however, the pad-lock on the pump house door and the operations of starting the auxiliary engine, considerable time elapsed before this engine was activated.

CONCLUSIONS AND RECOMMENDATIONS: This building had a superficial appearance of relative safety. The extremely high elevation of the wood roof on heavy structural steel supports gave the impression that the combustible construction was relatively free from the possibility of fire resulting from any hazards of occupancy. This impression, however, was basically erroneous since the roof was of wood and subject to ignition by relatively small fires within the building. Wall areas between the small additions and the main building were of ordinary wood construction and contained sufficient fuel to allow roof exposure. Piles of tar and frame bulkhead walls of the grain storage section each provided another easy path for flames to reach the roof. Skeleton wood supports of the metal sheathing also supplied additional fuel. Once the roof was ignited, the arched bays apparently had no effect in stopping the rapid spread of this fire. One report indicates that in the short span of 10 minutes the fire had traveled and involved the roof area of bays 11 through 7 or approximately 160,000 sq. ft. There is nothing to indicate that the rate of spread of this fire was due to unusual conditions. Fast spreading fires under similar situations are not unusual.

Because of the electric power failure, booster pumps on the yard water system were inoperative for approximately 24 minutes, which is an indication of the unreliability of electric powered water pumps without automatic cut-in devices. It is questionable, however, whether or not this fire could have been contained even though the water supply had not been impaired. The large size of this building and the 60 ft. elevation of the roof made it difficult to reach all areas with hose streams.

STATE OF OREGON
FIRE MARSHAL DEPARTMENT
420 FERRY STREET
SALEM

September 11, 1961

Mr. V. Dean Musser
State Fire Marshal
Labor and Industries Building
Room 111
Salem, Oregon

Dear Mr. Musser:

Re: Beall Pipe and Tank Corporation Fire
(Old Oregon Shipyards)
North Portland
June 17, 1961

The largest and most destructive fire in Oregon in recent years reared through the former Assembly Building of the old Oregon Shipyards located at 12005 N. Burgard Street in North Portland housing the West Coast Steel works (Bays #1 and #2), Kerr Grain Company bulk grain storage (Bays #3 and #4) and the Beall Pipe and Tank Corporations operations in Bays #5, 6, 7, 8, 9, 10 and 11, on the morning of June 17, 1961. The huge blaze reduced the sprawling 300' x 675' structure to a mass of twisted, warped and smouldering debris in less than an hour. The old yard which has been converted into an industrial area is located just north of the city limits. Occupants of the area contract with the city of Portland for fire protection.

The Bullen Steel Products Company of Washington still maintains control of the yard and rented Bays #1 to 4 inclusive. The Beall Company had purchased Bays #5 to 11 inclusive in recent years. The six alarm blaze resulted in the response of 24 pieces of fire equipment including two fire boats. (See Greater Alarm and District Chief's reports) Four firemen were injured, but none seriously. Cause of the costly blaze which appears to have originated in a one-story frame storage area adjoining the main structure on the north remains undetermined. The combined loss to the various occupants is estimated to be in excess of $4,000,000.

In order to present a more comprehensive picture of the situation, a brief summary of the nature of the building's construction and occupancy load is introduced into the report at this point. As previously mentioned, the over-all dimensions of the involved area were 300' x 675', plus one-story frame lean-to additions attached to the main structure on both the north and south ends. The main building consisted of eleven bays numbered from south to north. Bays were 77' 6" in width from center to center, concrete floors, single span wood truss-type roof supported by steel columns, two-

COPY

inch tongue and groove roof sheathing covered by numerous layers of tar paper. Height at the top of the roof arches was approximately 65'. Bays #1 and #2 occupied by the steel works and Bays #3 and #4 utilized for bulk grain storage had covered roof sections of 320' in length. Roof ventilators had been added to Bays #3 and #4 and heavy timber bulk heads and retaining walls installed in the interior of the bays to contain the bulk grain storage. Bay #5 housing steel pipe making equipment had a 320' roof covered area. The roof section over Bay #6 also used for steel pipe making extended to 380'. The roof sections over Bays #7 and #8 extended only 320'. These areas were utilized for the manufacture of pipe and culverts.

Bays #9, #10 and #11 were covered the full length of 500'. Bays #9 and #10 were utilized for coating, dipping and treating finished pipe. Bay #11 was devoted to the fabrication of truck tanks and trailer units. Bays #7 to #11 inclusive were vented at roof level. Bays #1 to #5 were closed on both ends. Bay #6 was open on both ends. Bays #7 and #8 were open on the west end. Bays #9, 10 and 11 were closed on both ends. Either transite siding or corrugated metal was utilized to enclose the end sections. A corrugated metal partition extended from the floor to the ceiling between Bays #6 and #7. A partial partition of frame studs and transite sheathing separated Bay #9 from #10. Nine overhead cranes ranging from 5 to 25 ton capacity were located as follows: Bay #5, one, Bay #6, one, Bay #7, one, Bay #8, one, Bay #9, two, Bay #10, two and Bay #11, one. Four of these units located in Bays #9, #10 and #11 crashed to the floor when the intense heat buckled the supporting steel girders.

The yard area maintains its own water system which was laid out and installed at the time the yard was originally constructed. At that time the system was tied into the city system by means of a 12" supply line. In recent years the city supply has been discontinued and the area is wholly dependent on five deep well pumps, operated by 30 hp electric motors for its source of supply. Two of the deep wells are equipped with 75 hp auxiliary gasoline power units which can be operated in event of a power outage. All electric well pumps are equipped with automatic controls. The auxiliary pumps require manual operation. The five deep well units located along the east side of the yard deliver water through an 8" and 12" line to a 200,000-gallon aboveground storage tank located at the main pump house in the southeast corner of the yard. Three 1,000 gpm booster pumps operated by 75 hp electric motors equipped with automatic controls located in this station maintains an average of 100 psi on the system. One of these units (pump #5) is so designed that a 100 hp gasoline power plant, manually operated, can be used to operate the pump. A second aboveground storage (300,000 gallons) with two additional 75 hp 1,000 gpm automatic electric pumps is located in the southwest corner of the yard. Pump #4 in this station is designed to operate with a gasoline auxiliary power unit. The 300,000-gallon storage tank is filled by the booster pumps in the main pump house and at the present time requires the opening of a manual valve in order to initiate refilling operations.

A 12" main connects the two pumping stations. A 12" main from the main pumping station running along the east edge of the yard reduces to a 10" to supply the Container Corporation Plant north and west of the Beall Plant. Looped 8" and 6" mains extending from this 12" main run along the north side supplying the hydrants in this area and are tied in with 8" and 6" mains extending from the second pumping station along the west side. The 8" and 6" mains in the area involved in the fire feed both ways, from the 12" main on the north and the 12" main on the south. The system is so designed that either one or both of the two pumping stations will furnish water to the entire system. The automatic controls on the 1,000 gpm electric pumps are designed to activate the pumps in series dependent on the demand on the system and in case of emergency will raise the pressure on the system to 120 psi at the pumps. The majority of the mains in the system consist of steel-wrapped pipe with some cast iron in the north area.

Seven standard hydrants are located in the immediate area of the involved building. Four of these hydrants were located in such close proximity to the burning structure as to prevent their utilization. Fire department pumping equipment was forced to drop back to hydrant locations on the east, south and north sides some distance from the involved area and employ remote and relay pumping operations in order to supply operating hose lines. In three instances pumpers were operating by means of 50' to 100' of double soft suction lines due to the proximity of hydrants to the burning structure.

Weather conditions had been abnormally warm with temperatures ranging into the 90's during the week. Information from the U.S. Weather Bureau records at the Portland Airport reveal the following information on conditions on June 17th.

Time*	Temperature	Humidity	Wind
7:00 a.m.	69°	64%	N 4 mph
8:00 a.m.	74°	59%	NW 5 mph
9:00 a.m.	74°	59%	WNW 9 mph
10:00 a.m.	74°	55%	WNW 7 mph
11:00 a.m.	79°	52%	WNW 5 mph
12:00 Noon	82°	46%	WNW 5 mph

*Daylight Saving Time

The conditions at the scene of the fire were comparable to those at the weather station. During the early stage of the fire the wind was carrying flying embers slightly to the east of the large Terminal #4 area. Later the winds became variable but the danger of wind-blown embers involving the Terminal buildings was greatly reduced when this change occurred.

The Beall plant area is enclosed by an 8' cyclone fence. Gates have been installed at all four corners. The main gate and guard shack are located at the northeast corner of the enclosed area. The guard shack is manned on a

round-the-clock basis by a professional guard service. During periods when the plant is not in operation, hourly tours are conducted by the gate guard of the plant and office which involves the punching of 16 Detex clock punch stations located as follows:

1. Interior of Don Turner's office, northeast corner opposite Bay #11.
2. Interior of Store Receiving #2.
3. North wall of Bay #11, opposite lunch room.
4. Interior of Ryan's office, northwest corner, opposite Bay #11.
5. East wall of coating plant.
6. Interior of office opposite Bay #1.
7. Interior machine shop opposite Bay #1.
8. Interior of lunch room opposite Bay #1.
9. Interior of Bay #5, adjacent to east door.
10. Interior of office in Bay #6.
11. Downstairs in main office building.
12. Upstairs in main office building.
13. Interior of Bay #9 adjacent to east door.
14. Dipping vat midway of Bay #8.
15. Interior of Les Wood's office, northeast corner opposite Bay #11.
16. West end of Bay #4.

Clock stations were punched in the following order on the 8:30 and 9:30 tours: Stations #1, 2, 3, 4, 5, 16, 6, 7, 8, 9, 10, 13, 14, 11, 12 and 15.

Average time for the 16 station tour is 35 minutes. The Detex clock record for June 17, 1961 initialed by George W. Green, operator of the guard service, reveals that hourly tours were initialed at 1:30 a.m. (DST) and continued until 10:00 a.m. The last recorded tour was started at approximately 9:30 a.m. Station #2 in Store Receiving #2 was punched at approximately 9:40 a.m.

John MacArthur, 10032 N. Mohawk Avenue, verified that he had come on duty at 8:00 a.m. and had completed two tours of the plant. He stated that he had detected an unusual odor on both trips in Store Receiving #2 resembling

that of a lacquer or thinner but wasn't too much concerned about it. He stated that he was seated in the guard shack facing the north side of Bay #11, when he observed blue smoke issuing from the area of Store Receiving #2 that changed to a black color as he started toward the scene.

Four employees were working in the yard the morning of June 17. David Bryant and Gerald Seibert were operating a "pipe belling" machine located in the northwest corner of the yard. James T. Vincent and Jackson Nutt were working with a fork truck in the area opposite the northwest corner of Bay #11. The men had taken a ten o'clock break. Bryant had gone to the office on the east end of Bay #6 for a thermos bottle. Seibert, Vincent and Nutt had gone to the lunch room located along the north side of Bay #11 between the compressor room and Store Receiving #3 (see picture #10). Seibert stated he had walked along the north wall of Bay #11 to a drinking fountain located opposite the tool room of Store Receiving #2 (see item 22 on sketch); that he noticed no smoke or odor of smoke in the area at the time; that as he was returning to the "belling" machine between 5 and 10 minutes after leaving the drinking fountain he heard Bryant's call of "fire." The 4 men ran to the scene noting that smoke was issuing from the eaves and peak of the lean-to roof of Store Receiving #2 and observed the glow of flames toward the rear wall of the store room. They met MacArthur as they reached the spur track leading into Bay #11. According to MacArthur, he threw his keys to one of the men then ran back to the guard shack where he notified the fire department.

In the meantime the 4 men had entered Bay #11, Bryant, Nutt and Vincent from the northeast side track door, Seibert through the lunchroom. The men report smoke was oozing through the cracks of the frame wall separating the store room from Bay #11 and that flames had broken through the partition above the bank of argon cylinders along the north wall of Bay #11 (See item 23 on sketch) and had advanced beyond the stage of control by means of hand fire extinguishers. No attempt was made to employ 1½" stand pipelines. The 4 men immediately commenced moving vehicles out of the Bay, driving equipment out of both the east and west ends of the Bay and continued these rescue operations after fire equipment arrived until burning roof sections dropping on the floor forced them out. According to employees the fire had spread along the underside of the roof sections as far south as Bay #7 at this time.

MacArthur's telephone alarm was received at alarm headquarters at 10:16 a.m. (DST). The initial response consisted of 4 engine companies, 1 truck, 1 fire boat and the Chief of District No. 3. E-22 and Tr. #9 drove into the yard. The engine hooked up to the hydrant north of the involved area (see picture #11). The truck went to northeast corner. E-27 laid from the hydrant outside and north of the guard shack. E-8 laid a second line from this hydrant into E-27 and returned to the hydrant to pump. E-26 laid from the hydrant in front of the office to the northeast corner. BC 3 who was at E-8's quarters when the alarm was received asked for a 4th alarm assignment as he drove into the area at 10:27 a.m. and a 5th alarm assignment at 10:31 a.m. A 6th alarm was received at 10:35 a.m. (See Greater

Alarm Report for assignments, changes of location and reserve companies activated). A call for mutual aid at 10:41 a.m. brought 6 companies into Portland stations on a prearranged assistance plan.

Fourth alarm companies were ordered into the south side of the blaze to check the impending threat to the Terminal #4 area. E-2 and E-24 moved into the yard on the south while E-16 and E-17 laid from a city hydrant adjacent to Terminal #4 into the south and west areas. Additional responding units dropped back to yard hydrants on the fringe areas. E-7 and E-28 located on hydrants adjacent to the Beall office while E-3 hooked up to a hydrant east of the smaller pumping station on the west side. Pumpers were placed in tandem pumping remote from pumpers on hydrants and the fireboats. Seven engine companies were operating from yard hydrants. Two engine companies were utilizing hydrants on the city system. Some truck companies were operated as water towers while crews of others were used on hose lines. The two fireboats operating from the river supplied water to manifold trucks and engine companies which in turn were either relaying or operating on the fire. Distances traveled by responding equipment ranged from 2 to 15 miles. Responding fireboats required from 30 to 45 minutes to reach the scene.

According to Portland's Fire Record Report, response to the blaze involved 5 chiefs, 19 engines, 4 manifold units, 5 trucks, 2 compressors, 1 squad, 2 fireboats, 1 tanker, 150 on-duty personnel and 184 off-duty personnel. Recall was sounded at 12:25 p.m. and equipment started reporting back in service shortly after 1:00 p.m. However, patrols and standby lines were maintained until the following Monday, June 19. The report reveals that one 3½", ten 3", twenty-two 2½", twenty-four 1½" and five booster hose lines for a total of 24,100-feet of hose were utilized in the operation. Engines pumped a total of 54 hours and 30 minutes. Three aerials were in operation. Six outlying engine companies from Districts #2, 9, 10, 13, Portland Air Base and Vancouver, Washington, with a total of 28 men moved into 5 Portland stations under a preplanned mutual aid arrangement to augment the city's remaining 9 engine companies and 5 truck companies that were in service.

Shortly after the arrival of the first engine companies it became apparent that the 11,000 volt service into the battery of transformers located on the north of the plant was in danger of becoming involved (see picture #8). R. I. McIntyre of Owens and McIntyre electrical contractors, (who maintain an office in the area), and who was thoroughly familiar with the yard electrical system entered the substation and using a "hot stick" to pull the fuses created an arc which he anticipated would blow the fuses on the power company pole at the point where the service entered the yard by the guard shack gate. Instead the short overrode these fuses in a so-called "flash-over." A power surge was created sufficient to cause two aerial lines to come together and fuse which resulted in opening a breaker at the B.P.A. substation and a power outage throughout the yard. This action was logged at 10:24 a.m. Power was not restored for approximately 24 minutes during which time the electric booster pumps on the yard water system were inoperative. As a result the 3 engines operating on the system were starving for water during the critical early stages of the blaze.

After shorting out the 11,000 volt service, McIntyre ordered Mr. Owens to drive to the main pump station and start the auxiliary pump. In the meantime two employees of the Container Corporation Plant, Gilbertson and Gustafson, upon becoming aware of the power outage and fire, started to drive to the smaller pump station which is maintained by Container Corporation. Enroute they stopped at the main pump station where Owens was experiencing difficulty in starting the auxiliary unit. After a short stop the two men then continued to the smaller west pump station where they placed the auxiliary unit in operation. Gilbertson then returned to the main station where he was eventually able to start the motor but according to his statement the power was restored and the electric pumps dropped in before the auxiliary had warmed up sufficiently to carry the load. From the above it would appear that for the period of the power outage the only fire pump operating on the entire yard system was the single 1,000 gpm auxiliary unit in the smaller pump station which explains the difficulty the first alarm pumpers experienced in maintaining effective fire streams. With the restoration of service to the yard, the 5 deep well pumps and the 3 booster pumps in the main station again became operative. According to Gilbertson the auxiliary pump in the west station was kept on the system for considerable time to assist in supplying a city engine located on a nearby hydrant.

Based on the statements of the 4 employees and the plant guard who were in the area when the fire was discovered who state that the first visible smoke and flame was in the one-story lean-to Store Receiving Section #2 and was starting to break through the frame partition dividing the storage area from Bay #11, we are of the opinion that the fire originated in this area. The actual cause remains undetermined. Attempts to pin point the source of ignition and the exact point of origin would be mere conjecture. From their statements it would appear that once ignited the flames spread rapidly in the combustible and flammable contents of the storage area sweeping through the frame partition into the Bay where it involved additional combustible storage on balconies arranged along the north wall of the Bay. A 440 volt aerial service line suspended from the steel columns and girders approximately 18-feet from the floor along the north wall of Bay #11 revealed evidence of having been subjected to heavy arcing. This service which extended the entire length of the wall was in our opinion a factor in the rapid spread in Bay #11. A second 3-wire 440 volt line utilized as a trolley wire for the overhead crane was attached to the heavy steel girder which served as a crane track. This line extending the full length of the north wall also revealed evidence of arcing and was probably a factor in aiding the spread of the flames into the roof section. The accumulation of dust and residues from the numerous fabrication and manufacturing processes carried on in the structure was another possible factor in the rapid spread. Grain dust in the middle and southern Bays was also a probable factor.

In summarizing it appears that a combination of contributing factors was responsible for the complete destruction of the large structure.

1. The size and the height of the building presented a problem in establishing control once the structure became involved.

2. The various manufacturing processes carried on in the plant present certain hazards in the form of residues collecting in the areas where the processes are in progress.

3. The presence of grain and metal dusts could have been a factor.

4. A limited water supply for the yard which obviously was insufficient to cope with a fire of this magnitude was undoubtedly a factor, plus the fact that the system suffered a serious curtailment during the early stages of the fire. However, it should be pointed out that the blaze had reached such proportions by the time outside responding equipment could be placed in operation that it is extremely doubtful whether the fire could have been checked regardless of the water supply.

5. The distance of travel of outside responding equipment.

6. The lack of fire walls or divisions in the structure.

During the course of our investigation we were present in the yard when a fire occurred in some debris along the water front on the extreme north edge of the old shipways on the morning of July 19, 1961. This incident forcibly brought to our attention the potential hazard this area poses to the adjacent areas, the old plate shop and mold loft located east of the ways and presently utilized for grain storage and the extensive dock and warehouse area of Terminal #4, located in close proximity on the south. The old ways covering an area approximately 800' x 1,300' are in a sorry state of repair. Much of the decking and many of the timbers have become rotten and punky, and in the summer after a prolonged dry spell, become tinder dry. Should a fire occur along the north edge under conditions when temperatures were high, humidities were low and a stiff north wind was present, (such conditions frequently exist during the summer months) the results could be disastrous. The water supply in the yard is limited. The length of the ways is too great for complete coverage by the fireboats. The large accumulation of combustible material could understandably sweep out of control and result in a conflagration in the area. We would like to take this opportunity to point out the potentials existing in these abandoned structures and suggest that measures be initiated to correct this hazardous condition.

Respectfully submitted,

J. W. Gault
Deputy

JWG:cd
JFP:cd

John F. Pickett
Deputy

Bureau of Fire

Greater Alarm Report

E.A.I Division

Location 12005 N Burgard Date June 17, 1961

Occupancy Berry Pipe and Tank Co.

Alarm	Time	Signal	Engine	Trk	A.C.	B.C	G.P.	S.W	F.B.	Recall Time
First	10:16 AM	36-54	22-26 27-8	9		3			2	12:25 PM
Second			16-24 6	7	1	4	1	1	1	
Third			17-14	5						
Fourth	10:29 AM	Radio By C-3	2-13			2				
Fifth	10:31 AM	Radio By C-3	3-12 1-7	3		5				
Sixth	10:38 AM	Radio	21-4 28-23	4						
Fifth Alarm	10:50 1:40 PM	Radio Radio	Transferred From Kerron							

Changes of Location

5 To 21	9 To 9	25 To 23	15 To 17	T-8 To T-2	T-1 To T-9	T-2 To T-1	T-6 To T-5	T-5 T-9 3:34 PM	12 To 8 4:55 PM	23 To 22 9:01 PM	

Reserve Apparatus in Service

Co. No	19x	20x	21xA	13x	T-7x	25x	14x	24x	16x	21xE	T-6x	T-18
Time	10:47	11:06	11:05	11:12	11:16	11:19	11:34	11:38	11:39	11:[illegible]	11:53	12:04

Reserve Changes of Location

19x To 12	20x To 10	21xA To 16	25x To 1	13x To 22	14x To 24	24x To 3	T-1x To T-3	19x From 12 To 28	24x From 3 To 14			

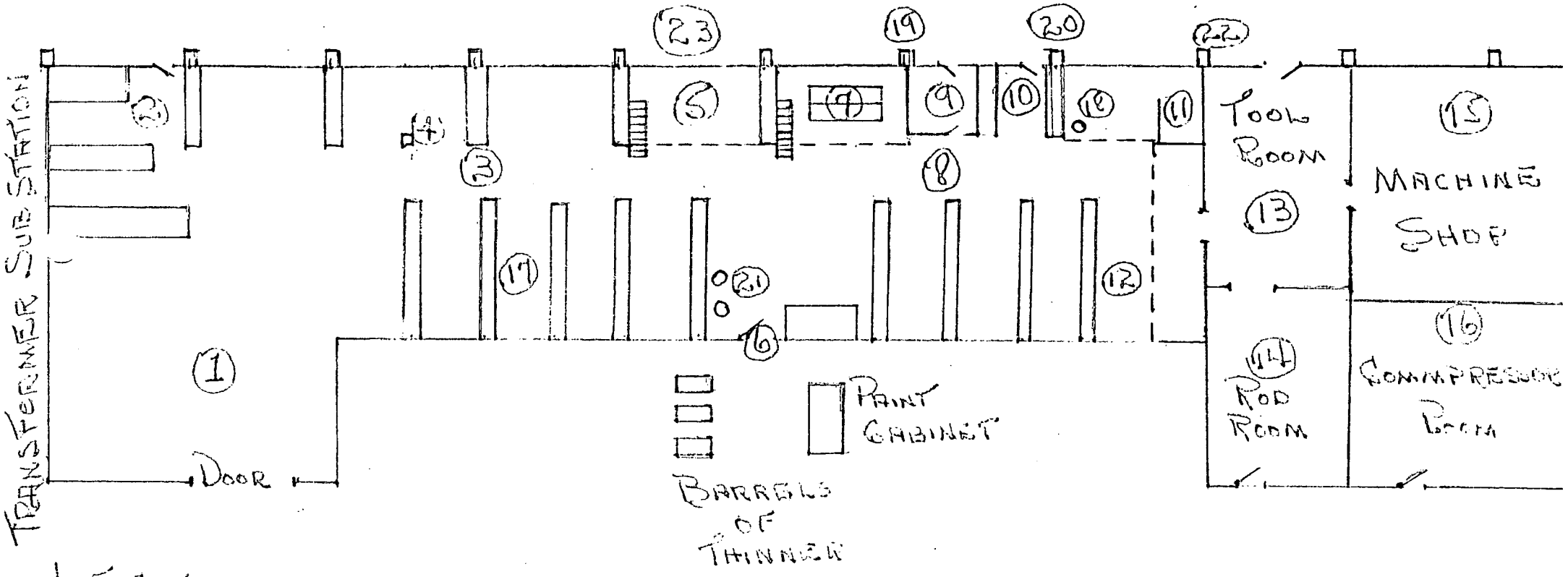
Reserve Companies Released: As Regular Companies Returned

Remarks: Called Mutual Aid at 10:41 AM, Parkrose Dist #2 To 28 - Dist #13 To 14 - Vancouver To 24 Dist 9 To 19 - Airbase To 14 Dist 10 To 25

ATPUB0504185

Floor Plan of Store Receiving Sections #1 and #2

Bay 11



LEGEND

1) Entry to Trailer Supply Room
2) Entry and Bin Storage Area for Trailer Supply Room
3) Passageway to Supply Bins and Store Receiving Section #2
4) 8" x 8" Column upon which Punch Clock Key was located
5) Shelved area used for Paint Storage. Approximately ½ Gallons. Balcony above utilized for storage of paper

(6) ENTRY TO RECEIVING #2 WITH WORK BENCH ALONG NORTH WALL AT RIGHT OF DOOR.

(7) BINS FOR STORAGE OF MISCELLANEOUS PARTS, BALCONY ABOVE HELD PRINTED FORMS, EXTRA LIGHT GLOBES AND VARIOUS TYPES OF VALVES AND FITTINGS

(8) PASSAGEWAY TO VARIOUS STOCK BINS

(9) RECEIVING #2 OFFICE

(10) ENTRY WAY WITH DIVIDED DOOR USED FOR DISTRIBUTING STOCK ARTICLES TO WORKMEN. A WELDING ROD STORAGE CABINET HEATED BY A THERMOSTATICALLY CONTROLLED ELECTRIC BASEBOARD TYPE HEATER WAS LOCATED IN THIS PASSAGE WAY AGAINST THE WEST RECEIVING OFFICE WALL

(11) A LAVATORY WAS LOCATED IN THIS CORNER. VARIOUS SIZES OF WELDING FLANGES WERE STORED IN BOXES ALONG THE WALL

(12) LOCATION OF A SMALL WORK BENCH. A BALCONY

LOADED WITH BOXES OF OLD RECORDS EXTENDED OVER AREAS (11) & (12).

(13) TOOL ROOM CONTAINED METAL BINS FOR STORAGE OF VARIOUS TYPES OF TOOLS. CASES OF WELDING ROD WERE STORED ON HEAVY SHELVING ALONG REAR WALL.

(14) A LARGE STOCK OF WELDING ROD STORED IN THIS AREA.

(15) MACHINE SHOP.

(16) COMPRESSOR ROOM

(17) STORAGE AREA FOR PRIMERS AND PAINTS FOR TRAILER DEPT.

(18) PRESSED PAPER CONTAINER FOR STORAGE OF SOILED RAGS

(19) & (20) PARTITIONS EXTEND TO ROOF

(21) METAL TRASH BARRELS

(22) DRINKING FOUNTAIN LOCATED ON SUPPORTING GIRDER OF NORTH WALL OF BAY 11

(23) BANK OF ARGON CYLINDERS LOCATED ALONG NORTH WALL OF BAY 11

NOTE - ON THE SHELVING IN AREA (3) WERE MANY

CANS OF PAINT, BOTH NEW AND USED, STORED ALONG THE EDGES OF THE PARTS BINS.

WATCH ENTERED SUPPLY ROOM THRU DOOR - AREA (10) - PROCEEDED DOWN PASSAGEWAY (8) AND (3) TO PUNCH CLOCK KEY (4) AND RETURN OVER SAME ROUTE

June 21, 1961

STATEMENT OF DAVID H. BRYANT

My name is David H. Bryant, (b) (6) years of age, (b) (6) and (b) (6), I am employed by Beall Pipe & Tank Corporation, as a foreman in the tube mill department. I have been so employed for the pat 8½ years. Beall Pipe & Tank Corporation are engaged in the fabricating of steel pipe. On the 17th of June, 1961, I was at my place of employment, 12005 N. Burgard and we had a crew of 4 men, counting myself that were working overtime to catch up on back orders. Beall Pipe & Tank Corporation are located at the "Old Oregon Shipyards" and we use Bays 5 and 6 for the pipe fabricating. Bay 4 is leased to Kerr Grain for grain storage and Bay 7 is the culvert department of Beall Pipe & Tank Corp. I went to work at 8:00 A.M., as did the other three fellows. We had been working about 2 hours on "belling" pipe and the work area we were in was outside Bay 11, which is about 2000 feet from Bay 5 - 6. It was about 10 o'clock when I went to the shop office in Bay 8, at the east end. I got my thermos bottle and noticed on the clock that it was 5 minutes past 10:00 A.M. I walked back through Bay 8 to the "belling machine" area. I imagine it took me three or 4 minutes to walk back and just as I got to the belling machine area, I looked alongside Bay 11, at the outside of the building and s aw smoke. The smoke was coming out of the stock room about 25 feet in the air. I yelled at Gerald Seibert that we had a fire. When I first saw the smoke I didn't fully realize there was a fire in the building, that possibly someone was burning something. I then recalled no one was working in that area. I called to Gerald Seibert and told him to get Jack Nutt, Jim Vincent and immediately ran to where

Statement of David H. Bryant - continued

we saw the fire or smoke. I looked inside and saw the flames in the stock room. I told Jack to tell the guard to call the Fire Department and I ran up to a door on the northeast side of the building, grabbed a fire extinguisher just inside the building. I ran down to where the fire was in Bay 11 and the flames had burned through the wall dividing the stock room and Bay 11. The fire was 15 - 20 feet above the floor level inside Bay 11. That was where the fire had burned through from the stock room. The flames were going up the wall inside Bay 11. Bay 11 houses the truck tank and trailer department. There was no one working in the stock room. The last man to leave the stock room, whose identity I don't know, left as the swing shift quit at 12:30 A.M., June 17, 1961. There is no moving equipment in the stock room such as grinders, etc. It is strictly a receiving and warehouse unit for shop supplies and material. The flames were spreading fast and the 4 of us took about 8 trucks and trailers and small pumpers out of Bay 11. Everything that we could move in the short time before the flames spread, we moved from Bay 11. There is a compressor room off the stock room that houses 2 compressors. The compressors however, were not in operation the 17th of June, 1961. In the time since I first noticed the fire to about 10:30 A.M. about 15 minutes the flames had spread through the underneath side of the roofs in Bays 10, 9 and 8. I do not know how thick the wheat dust was in the ceiling area of Bay 11, but it was quite heavy in Bays 5 and 6 where I work. I have no idea as to the cause of the fire. When I came to work I walked through Bay 11 and at that time I did not smell any smoke or see anything unusual.

/s/ David H. Bryant

STATEMENT OF JACKSON D. NUTT

My name is Jackson D. Nutt, (b) (6) years of age, (b) (6)

(b) (6) I am employed as yard foreman by Beall Pipe & Tank Corporation, 12005 N. Burgard, Portland, Oregon, at the old Oregon Shipyards area. On the 17th of June, 1961, I and Jim Vincent were working near Bay 11. We went in after a bottle of milk to the lunch room, David Bryant hollered fire. We took off and ran up where the fire aas and I then went and called the Fire Department but met the guard by the tracks leading into Bay 11 and asked him to call the Fire Department. I then caught up with Dave Bryant, got a fire extinguisher and ran inside Bay 11 to where the smoke and flames were coming out. The fire extinguisher you could see was not to be of any help and we then started to move the trucks out. On the trip back in I cut off the liquid oxygen tanks outside. There was no one working in Bay 11 or the stock room. I had been in Bay 11 about 8 o'clock after the whistle blew and at that time did not smell any smoke. The flames seemed like they just jumped across after they reached the top of the buildings. When I first saw the flames from inside Bay 11, it looked like the fire had started in the stock room as the flames were coming through the wall up high.

/s/ Jackson D. Nutt

STATEMENT OF JAMES T. VINCENT

June 21, 1961

My name is James T. Vincent, (b) (6) years of age, (b) (6) I am employed as yard driver by Beall Pipe.Tank Corporation, 12005 N. Burgard, Portland, Oregon. On the 17th of June, 1961, I went to work at 8:00 A.M. There were 4 of us working, David Bryant and Gerald Seibert were working in the "belling area, I was driving a fork lift and Jackson Nutt was working with me. I had plenty of pipe at the belling area and about 10 o'clock, as well as I can remember, Seibert, Nutt and I were in the dressing room which is at the west end of Bay 11. This is just a room and store rooms. There are three sections or departments to the stock room in the leanto shed. At the time we went into the dressing room to get some milk I did not smell any smoke or see anything unusual in the area. We were in there about 5 minutes when David Bryant came running up alongside the building or leanto hollering fire. I ran out and as I ran alongside the west end of the building, I got to the company pickup which was alongside that section of the stock room where the fire had broke out. It seems to me that the store room was full of fire and smoke from what I could see through the windows and the fire was breaking out at the peak of the roof of the stock room where it joins onto Bay 11. I got into the pickup and moved it outside the west end of Bay 11. I then went through the main door into Bay 11 and the four of us started moving trucks out of Bay 11. There was no one working in the stock room and none of us had been in the stock room. When I went into Bay 11 to help move the trucks out the flames were coming through the wall of Bay 11, from the stock room and going up. It took about 10 - 20 minuts to move the trucks out of Bay

11, and I was the last one out, driving a Ford cab-over and at that time, the flames were spreading in the ceiling down as far as Bay 7. As I drove the truck down the back side of the Bays, [illegible] I stopped alongside or at the end of Bay 7, the flames were [illegible] of Bay 7. There was a galvanized wall between Bays 6 and 7 and I don't believe the fire had yet reached Bay 6. There was steel beams down the center of the Bays with wooden timber [illegible] across. Kerr Grain has Bays 3 and 4 for grain storage and when they are pumping either into or out of the Bays there is wheat dust from the pumping. The chaff blows with the wind and I had noticed wheat chaff on some of the beams not as much in Bay 10, but in 9,8,7 and 6. I never noticed if there was any in Bay 11. The reason I noticed it in the Bays 9,8,7,6 & 10 is because I was a crane operator in these Bays at an earlier date about 9 years ago. There was no one working in Bay 11. I do not think there was any power equipment in the stock room where I believe the fire originated. Because of tanks stored at the wall on the floor at Bay 11, next to the stock room, I could not say if fire was coming through that section of the wall at the time I saw the flame breaking through higher up the wall. I could not say where band saws, I believe two, were sitting alongside the wall in Bay 11 with respect to where the fire broke through and the same is true with respect to grind stones that were also at the end or side of Bay 11, where I saw the fire breaking through. I believe the wall to separate Bay 11 and the store was of shiplap. We had walked through Bay 11 about 20 minutes prior to the fire and at that time I could not smell any smoke. We were right in the middle of the Bay and I would

say about 40 feet from the wall. I believe there was a hand out window from the stock room to Bay 11. As far as I know the band saws and grinders are used by different people irregular times, no one being assigned to either the saws or grinders.

/s/ James T. Vincent